

§ 22.859 Geographical channel block layout.

Except as provided in paragraphs (a) and (b) of this section, each ground station location must be within 1.6 kilometers (one mile) of one of the locations listed in this paragraph. The channel block allotted for each location must be used to provide service to airborne mobile stations in flight and may be used to provide service to airborne mobile stations on the ground.

NOTE: All geographic coordinates are referenced to North American Datum 1983 (NAD83).

Location	N. latitude	W. longitude	Channel block
ALASKA:			
Anchorage	61°11'04"	149°54'50"	8
Cordova	60°29'38"	145°28'17"	5
Ketchikan	55°21'10"	131°42'20"	5
Juneau	58°21'17"	134°34'36"	4
Sitka	57°03'03"	135°20'23"	7
Yakutat	59°32'22"	139°44'10"	2
ALABAMA:			
Birmingham	33°23'24"	86°39'59"	2
ARIZONA:			
Phoenix	33°35'39"	112°05'15"	4
Winslow	35°01'17"	110°43'04"	6
ARKANSAS:			
Pine Bluff	34°10'56"	91°56'18"	8
CALIFORNIA:			
Burbank	34°11'44"	118°21'31"	4
Blythe	33°36'39"	114°42'27"	10
Los Angeles	33°56'45"	118°23'06"	3
Oakland	37°51'54"	122°13'15"	1
Red Bluff	40°04'34"	122°10'38"	8
San Francisco	37°41'15"	122°26'05"	6
San Jose	37°20'56"	121°54'01"	5
Visalia	36°19'36"	119°23'25"	7
COLORADO:			
Colorado Springs	38°44'39"	104°51'48"	8
Bennet	39°51'24"	104°35'53"	1
Hayden	40°29'04"	107°13'10"	6
FLORIDA:			
Miami	25°48'28"	80°16'29"	4
Orlando	28°26'54"	81°21'59"	2
Tallahassee	30°24'03"	84°21'18"	7
GEORGIA:			
Atlanta	33°39'05"	84°25'54"	5
St Simons Island	31°09'23"	81°23'13"	6
HAWAII:			
Mauna Kapu	21°24'13"	158°05'52"	5
IDAHO:			
Blackfoot	43°11'34"	112°21'00"	8
Caldwell	43°38'45"	116°38'47"	10
ILLINOIS:			
Chicago	41°46'49"	87°45'20"	3
Kewanee	41°12'05"	89°57'33"	5
Schiller Park	41°57'18"	87°52'57"	2
INDIANA:			
Fort Wayne	40°59'16"	85°11'31"	7
IOWA:			
Des Moines	41°31'58"	93°38'55"	1

Location	N. latitude	W. longitude	Channel block
KANSAS:			
Garden City	37°59'35"	100°54'06"	3
Wichita	37°37'24"	97°27'16"	7
KENTUCKY:			
Fairdale	38°04'48"	85°47'33"	6
LOUISIANA:			
Kenner	30°00'28"	90°13'49"	3
Shreveport	32°27'10"	93°49'39"	5
MASSACHUSETTS:			
Boston	42°23'15"	71°01'01"	7
MICHIGAN:			
Bellville	42°12'17"	83°29'09"	8
Flint	42°58'21"	83°44'22"	9
Sault Saint Marie	46°28'45"	84°21'31"	6
MINNESOTA:			
Bloomington	44°51'30"	93°13'20"	9
MISSISSIPPI:			
Meridian	32°19'11"	88°41'33"	9
MISSOURI:			
Kansas City	39°18'13"	94°41'05"	6
St. Louis	38°42'45"	90°19'19"	4
Springfield	37°14'28"	93°22'55"	9
MONTANA:			
Lewistown	47°02'56"	109°27'30"	5
Miles City	46°25'30"	105°52'32"	8
Missoula	47°01'05"	114°00'44"	3
NEBRASKA:			
Grand Island	40°58'00"	98°19'12"	2
Ogallala	41°07'11"	101°45'39"	4
NEVADA:			
Las Vegas	36°05'35"	115°10'28"	1
Reno	39°35'13"	119°55'56"	4
Tonopah	38°03'43"	117°13'27"	9
Winnemucca	41°00'39"	117°46'01"	3
NEW MEXICO:			
Alamogordo	32°54'46"	105°56'43"	8
Albuquerque	35°03'05"	106°37'15"	10
Aztec	36°48'42"	107°53'50"	9
Clayton	36°27'29"	103°11'18"	5
NEW JERSEY:			
Woodbury	39°50'01"	75°09'20"	3
NEW YORK:			
E. Elmhurst	40°46'21"	73°52'40"	1
Schuyler	43°09'09"	75°07'49"	2
Staten Island	40°36'05"	74°06'34"	9
NORTH CAROLINA:			
Greensboro	36°05'54"	79°56'41"	9
Wilmington	34°16'11"	77°54'23"	3
NORTH DAKOTA:			
Dickinson	46°51'05"	102°47'37"	7
OHIO:			
Pataskala	40°04'05"	82°42'00"	1
OKLAHOMA:			
Warner	35°29'31"	95°18'26"	4
Woodward	36°24'42"	99°28'51"	9
OREGON:			
Albany	44°38'23"	123°03'40"	5
Klamath Falls	42°06'30"	121°38'04"	2
Pendleton	45°35'44"	118°31'06"	7
PENNSYLVANIA:			
Corapolis	40°30'33"	80°13'26"	4
New Cumberland	40°11'30"	76°52'01"	8
SOUTH CAROLINA:			
Charleston	32°54'11"	80°01'19"	4
SOUTH DAKOTA:			
Aberdeen	45°27'21"	98°25'27"	6
Rapid City	44°02'36"	103°03'38"	5
TENNESSEE:			

Location	N. latitude	W. longitude	Channel block
Elizabethton	36°26'04"	82°08'05"	7
Memphis	35°01'44"	89°56'15"	10
Nashville	36°08'07"	86°41'39"	3
TEXAS:			
Bedford	32°45"	97°07'20"	1
Houston	29°54'38"	95°24'40"	2
Lubbock	33°37'06"	101°52'16"	7
Monahans	31°34'58"	102°54'20"	6
UTAH:			
Abajo Peak	37°50'21"	109°27'44"	7
Delta	39°23'15"	112°30'47"	2
Escalante	37°45'19"	111°52'30"	5
Green River	38°57'54"	110°13'43"	3
Salt Lake City ...	40°39'11"	112°12'09"	1
VIRGINIA:			
Arlington	38°52'55"	77°06'17"	6
WASHINGTON:			
Seattle	47°26'07"	122°17'39"	4
Cheney	47°33'14"	117°43'39"	1
WEST VIRGINIA:			
Charleston	38°19'47"	81°39'35"	2
WISCONSIN:			
Stevens Point ...	44°33'06"	89°25'27"	8
WYOMING:			
Riverton	43°03'37"	108°27'25"	9

(a) Carriers authorized to construct and operate air-ground radiotelephone systems on the channels listed in § 22.857 may also construct and operate low power ground stations designed to provide service to airborne mobile stations on the ground, provided that no interference is caused to service provided by ground stations located in accordance with the geographical channel block layout or with paragraph (b) of this section. The antenna location of each such low power ground station may be anywhere that is at least 483 kilometers (300 miles) from all antenna locations of ground stations using the same channel block(s) in accordance with the geographical channel block layout or with paragraph (b) of this section.

(b) Ground station locations may be more than 1.61 kilometers (one mile) from all of the locations listed in this section, provided that they are at least 885 kilometers (550 miles) from all antenna locations of ground stations using the same channel block(s) in accordance with the geographical channel block layout or with this paragraph.

[59 FR 59507, Nov. 17, 1994, as amended at 63 FR 68948, Dec. 14, 1998; 65 FR 49203, Aug. 11, 2000]

§ 22.861 Emission limitations.

Any appropriate emission type may be used to provide air-ground radiotelephone service on the channels listed in § 22.857, provided that the emission limitations of this section are met.

(a) *Emission mask.* The emission mask described in this paragraph applies instead of those in § 22.359. The power of any emission in each of the adjacent channels must be at least 30 dB below the power of the total emission. The power of any emission in any of the channels other than the one being used and the adjacent channels must be at least 50 dB below the power of the total emission.

(b) *Airborne mobile transmitters.* The power of any emission in each of the adjacent channels must not exceed -130 dBm at any ground station receiver, assuming a 0 dBi receive antenna. The power of any emission in any of the channels other than the one being used and the adjacent channels must not exceed -148 dBm at any ground station receiver, assuming a 0 dBi receive antenna.

(c) *Ground station transmitters.* The effective radiated power (ERP) of any emission outside of the frequency ranges set forth in § 22.857 must not exceed -10 dBm. The ERP of any emission in each of the adjacent channels must not exceed +10 dBm. The ERP of any emission in any of the channels other than the one being used and the adjacent channels must not exceed -5 dBm.

(d) If an emission on any frequency outside of the authorized bandwidth causes harmful interference, the FCC may require greater attenuation of that emission than required in paragraph (a) of this section.

§ 22.863 Transmitter frequency tolerance.

Ground station transmitter frequencies must be maintained within 0.1 parts per million (ppm) of the channel reference or center frequencies. Doppler shift correction must be used to ensure that the frequencies of the signals of airborne mobile stations received at ground stations remain within 0.2 ppm of the channel reference or center frequencies.